

19980222.ba v01\_n934.bam.980222 v01\_n935.bam.980222

>From ???@??? Sun Feb 22 11:57:23 1998  
Message-Id: <199802221607.KAA26459@sco.theporch.com>  
Date: Sun, 22 Feb 1998 10:07:07 CST  
Subject: BOATANCHORS digest 1934

BOATANCHORS Digest 1934

Topics covered in this issue include:

- 1) Re: help me identify  
by Scott Robinson <spr@earthlink.net>
- 2) Smithville, TX hamfest report  
by Phil Mills <pmills@a.crl.com>
- 3) Need HRO 60 info  
by "H. Dave meitzen" <dmeitzen@kwom.com>
- 4) Need R388 audio out xfmr  
by Phil Mills <pmills@a.crl.com>
- 5) Re: help me identify  
by Al Klase <skywaves@bw.webex.net>
- 6) Modifications and musings  
by Henry van Cleef <vancleef@netcom.com>
- 7) Re: BC-610 Information  
by Al Klase <skywaves@bw.webex.net>
- 8) Re: Need HRO 60 info  
by John Kolb <jlkolb@cts.com>
- 9) Swan 508 VFO - Help!  
by Don <nichf@roanoke.infi.net>
- 10) hot transformer fix  
by "Benjamin D. Hall" <kd5byb@WT.NET>
- 11) Re: San Diego BA Spots? Murphy?  
by Edward Zeranski <ejz@nosc.mil>
- 12) Re: Fax  
by kb9iua@juno.com (Kevin L Anderson)
- 13) Re: Buying a \$66 Racal RA-17  
by Morris Odell <morriso@vifp.monash.edu.au>
- 14) Re: Buying a \$66 Racal RA-17  
by Morris Odell <morriso@vifp.monash.edu.au>
- 15) Re: More stuff from Grandpa.../facsimile  
by John Dilks <oldradio@worldnet.att.net>
- 16) Re: Need HRO 60 info  
by Heinz und Hannelore Breuer <hbreuer@metronet.de>
- 17) Tube Substitutions  
by Galpind@aol.com
- 18) Re: Swan 508 VFO - Help!  
by JD Delancy <k1zat@dsport.com>
- 19) R-725 PTO

by Bill Riches <richesb@algorithms.com>  
20) Amphenol RF Relays?  
by jeffa@ix.netcom.com  
21) Help Dow-Key DKC-TR (Relay)  
by lrm-brm@juno.com  
22) Re: Fax  
by Bob Roehrig <broehrig@admin.aurora.edu>  
23) Re: Tube Substitutions  
by Sandy W5TVW <ebjr@worldnet.att.net>  
24) Re: hot transformer fix  
by "Roberta J. Barmore" <rbarmore@indy.net>  
25) Re: Fax  
by Dick Dillman <ddillman@igc.apc.org>

-----  
Date: Sat, 21 Feb 1998 16:16:25 -0800  
From: Scott Robinson <spr@earthlink.net>  
To: boatanchors@theporch.com  
Subject: Re: help me identify  
Message-ID: <v03007805b1151e4bc15c@[153.35.240.249]>

>Ronnie wrote:

someone help me identify the following items

>

>UTC S44 plate transformer

>>>>>575/525/0/525/575 VAC 500 mA. I guess it's intended for a choke input  
>>>>>filter because the quoted DC voltages are 470/430

>

>Bud air variable cap #946 (only number printed on it)

>Johnson 6 G 70 air variable cap

> Air variable (johnson?) number 149-13-3 stamped on end stator

> Air variable (johnson?) number 149-530-3 stamped on end stator

>

>and one more question, does a 6C8 fit a standard 8 pin octal socket?

>

>>>>>Sho' nuff, plus a grid cap for one of the triodes.

Regards,

Scott Robinson  
spr@earthlink.net

Junque is GOOD for you!

-----  
Date: Sat, 21 Feb 1998 18:40:30 -0600  
From: Phil Mills <pmills@a.crl.com>  
To: boatanchors@sco.theporch.com  
Subject: Smithville, TX hamfest report  
Message-ID: <3.0.1.32.19980221184030.00692cf0@a.crl.com>

This was a nice swapmeet. It was small....it seems to be about the same size every year. But, there were some nice BA's in attendance.

Saw, BA'ers Lynn Fisk, Ben Hall, and Dave Stinson.

TR4C with spkr and pwr supply in very good cosmetic condition and allegedly in good working order for \$250.

I saw at least 2 Halli SX-28's  
SP-600 and earlier model Super Pro  
HQ-110C  
only Collins I saw was a 651S1 receiver (sand state)  
Lynn Fisk had a Heath Apache and SB-10 combo for \$100  
Fair amounts of test equipment, computer, and CB stuff

No National equip.

I bought a Heath HD-20 xtal calibrator for \$5, a 1949 and 1953 ARRL Handbook for \$15 each, a C-to-BNC adapter for my R390A for \$7, and 5 NOS RCA 6DC6 tubes for \$1 each.

Nicest "find" was a black Studebaker Gran Turismo in the parking lot...wasn't for sale.

73, Phil

Phil Mills AB5TH  
pmills@a.crl.com  
Friendswood, TX

-----  
Date: Sat, 21 Feb 1998 18:58:34 -0500  
From: "H. Dave meitzen" <dmeitzen@kwom.com>  
To: boatanchors@theporch.com

Subject: Need HRO 60 info  
Message-ID: <34EF6A2A.137@kwom.com>

I have aquired a Collins 353C-14 filter adapter (1.4 Khz BP)for the HRO 60. Does any one know where I plug the little puppy in. There is a empty octal socket in the back but I would like to be sure.

Best Regards to the bottleanchors.  
Dave AA9TT

-----  
Date: Sat, 21 Feb 1998 19:48:02 -0600  
From: Phil Mills <pmills@a.crl.com>  
To: boatanchors@sco.theporch.com  
Subject: Need R388 audio out xfmr  
Message-ID: <3.0.1.32.19980221194802.006909b8@a.crl.com>

I'm working on restoring an R-388 and need an audio output transformer. There is a very non-original xfmr in it that I would like to replace with an original if I can locate one. If anyone has one or knows of a parts unit R-388, please e-mail me at pmills@a.crl.com.

thanks & 73,  
Phil

Phil Mills AB5TH  
pmills@a.crl.com  
Friendswood, TX

-----  
Date: Sat, 21 Feb 1998 21:05:55 -0500  
From: Al Klase <skywaves@bw.webex.net>  
To: w5sum@ms1.nwla.com  
Cc: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: help me identify  
Message-ID: <34EF8803.63EDE4D8@bw.webex.net>

S-44: Plate Xfmr., 115 V - 50/69 Hz primary, 575-525-0-525-575 V  
secondary, Provides 500 ma. max. DC.  
Listed for \$18.00 in 1953.

w5sum@ms1.nwla.com wrote:  
>  
> someone help me identify the following items  
>

> UTC S44 plate transformer  
>

Al Klase - N3FRQ  
skywaves@bw.webex.net  
Flemington, NJ 08822  
Web Page: <http://www.webex.net/~skywaves/home.htm>

-----  
Date: Sat, 21 Feb 1998 19:14:27 -0700 (MST)  
From: Henry van Cleef <[vancleef@netcom.com](mailto:vancleef@netcom.com)>  
To: [boatanchors@theporch.com](mailto:boatanchors@theporch.com)  
Subject: Modifications and musings  
Message-ID: <199802220214.SAA26694@netcom3.netcom.com>

I have three AC-DC hot chassis projects here. I originally had some plans about putting transformers in them to get rid of the hot chassis. However, there is the small matter of real estate for mounting transformers. I have the Hammond catalog, so know what is available from them through the distributors. The projects play like this:

1. Bliley CCO crystal oscillator. 7 crystal frequencies, a handy gadget to have around. I can install a Hammond unit that supplies 120 VAC at 27 ma. and 12 volts at 300 ma. The unit has a 12SK7 and 12SL7, and doesn't need any more power than that. Real estate is tight, but it will fit, and make a nice neat job for drilling two holes, parallelling the heater wiring, and not much else.
2. Hallicrafters S-38. My original plan was to install a 40VA isolation transformer on the chassis. While there's space on the chassis, and hum is unlikely, there isn't space under the speaker, and there are hum issues with the speaker. My plan on this one was to add a 1N4005 bridge rectifier and feed the set, tubes and all, with half wave ripple DC from the isolation transformer. What I really want to see is what this does to hum. It will raise it to 120 Hz., which is much more audible than 60 Hz. Might try doing that on a chassis outside the receiver and leaving it wired as an AA5.
3. National NC-46. This one is going to need a total and major rebuild. It uses 300 ma. tubes in series. One item inside is a very large filter choke intended to shut up some of the half-wave racket, which can be removed to allow installation of either an isolation transformer or a regular power transformer.

The same transformer I am going to buy to fix my RME-69 will fit, but it would mean converting the set to run on 250 volts B+ instead of

110. This is not a big deal, except for the need to supply 100 volts to the screens and local oscillator, replace the 25Z6 socket with an 80/5Y3, and set up the push-pull output to run 6K6's or 6V6's, both of which will swallow 250 volts on the screens. Is an NC-46 that rare a beast that doing such a conversion would be heresy? It's nice on the outside, but terrible on the inside.

I can put in an isolation transformer with a bridge rectifier setup as I had planned with the S-38. That would suggest buying a new choke from Hammond (open frame) and putting it under the chassis, where there is space.

Anybody fiddle with games like this? By the way, purists, the RME-69 is being restored to "suddenly, it's 1938" condition. The Hammond transformer is not an exact physical match for the burned-to-a-crisp original (filters shorted), but close enough that some flatwashers will pin down the mounting legs.

--

=====  
Hank van Cleef  
=====

-----  
Date: Sat, 21 Feb 1998 21:32:36 -0500  
From: Al Klase <skywaves@bw.webex.net>  
To: mikhael@hpcmp13.sj.hp.com  
Cc: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: BC-610 Information  
Message-ID: <34EF8E44.7D36EE9@bw.webex.net>

Michael and The Group,

The BC-610 was the military version of the Hallicrafters HT-4. In the lead up to WWII, the Signal Corp realized that mobile warfare would be the order of the day. They drew up specifications for a long-range HF station capable of "100 Watts on the Move". Hallicrafters designed and built the SCR-299 that consisted of a BC-610 xmtr, BC-614 speech amplifier, BC-342 AC powered rx, BC-312 DC powered rx, and a BC-939 antenna tuner shoehorned into a 4WD Dodge panel truck with a large whip antenna on top. The truck also carried antenna masts etc. for fixed site operation. AC power came from a 5KW Onan generator in a trailer. Later versions included the SCR-399 which was the same station in a more comodious shelter on the back of a duece-and-a-half, and SCR-499 that came sans shelter and truck. I also recall seeing a picture of one of these installed in a half-track.

You can find info one this radio system in the Signal Corps WWII

history books.

73,  
Al

Mikhael Brown wrote:

>

> I am looking for any information on the development and use of BC-610  
> and HT-4.

--

Al Klase - N3FRQ  
skywaves@bw.webex.net  
Flemington, NJ 08822  
Web Page: <http://www.webex.net/~skywaves/home.htm>

-----

Date: Sat, 21 Feb 1998 18:42:39 -0800 (PST)  
From: John Kolb <jlkolb@cts.com>  
To: "H. Dave meitzen" <dmeitzen@kwom.com>  
Cc: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: Need HRO 60 info  
Message-ID: <Pine.SCO.3.91.980221182958.9131B-100000@sd.cts.com>

On Sat, 21 Feb 1998, H. Dave meitzen wrote:

> I have aquired a Collins 353C-14 filter adapter (1.4 Khz BP)for the HRO  
> 60. Does any one know where I plug the little puppy in. There is a empty  
> octal socket in the back but I would like to be sure.

Not too sure this is for the HRO-60. My 1959 Western Radio catalog lists the 353A-08, -31, and -60 for the SP-400 and HRO-60 (where the dash number is the filter bandwidth in 100's of cycles/sec) The 353B-08, -12, and -31 is for the SP-600, and the 353D-08 and -60 are for the HRO50 and HRO-50T1. There are other adapters besides this list, of course - I have a 353D-31 (filterless) here that's not on the list, but I wouldn't expect both the 353A and 353C series to fit the same receiver.

At any rate, these plug in in place of the 1st IF tube. In the case of the 353D series, there's a lead coming out of the adapter top that the grid cap from the first IF transformer connects to.

John KK6IL

-----

Date: Sat, 21 Feb 1998 22:53:59 -0800  
From: Don <nichf@roanoke.infi.net>  
To: boatanchors@theporch.com  
Subject: Swan 508 VFO - Help!  
Message-ID: <34EFCB87.74A6@roanoke.infi.net>

Does anyone have a copy of a manual for the Swan 508 VFO? I got one of these things in pieces (literally). I'll need a manual to get it back together. Any help is greatly appreciated. Will gladly reimburse copying, postage, etc.

Thanks

Don  
KA8VKQ

-----  
Date: Sat, 21 Feb 1998 21:09:38 -0600  
From: "Benjamin D. Hall" <kd5byb@WT.NET>  
To: BoatAnchors@SCO.ThePorch.Com  
Subject: hot transformer fix  
Message-ID: <3.0.32.19980221210922.0069eba8@mail.wt.net>

Just one more potential remedy for a hot transformer - those little muffin fans that have overrun the surplus market, at least here in Houston.

One little fan sitting in front of me is mounted so that it blows on a heat sink. Mount the heat sink to the transformer with a little heat sink goo (surface tension will hold it okay I think), power the 12 V fan with rectified 6.3 VAC filament juice, tapped off a nearby tube, and wha la! You could even use that rectifier filament winding left over from solid stating the PS... No permanent changes...

73,  
Ben  
---

Benjamin D. Hall, KD5BYB, Engine and radio collector / operator.  
Located in Houston, Texas, USA.  
e-mail: kd5byb@WT.net, web: \*\*\*down for refurbishment\*\*\*  
"An ye harm none, do what ye will."

-----  
Date: Sat, 21 Feb 1998 20:36:40 -0800  
From: Edward Zeranski <ejz@nosc.mil>  
To: ddillman@igc.apc.org  
Cc: boatanchors@theporch.com



Subject: Re: San Diego BA Spots? Murphy?

Message-ID: <3.0.1.32.19980221203640.0069b15c@marlin.nosc.mil>

At 01:29 PM 2/21/98 -0800, you wrote:

>At 08:43 PM 2/21/98 UTC, n5off@w5ddl.aara.org wrote:

>

>>Anyone know of good places to visit in San Diego? Surplus or BA shops?

>>Mil museums?

>

>If you are willing to expand your radius of operation to El Cajon I would

>highly recommend a visit to Murphy's Surplus Warehouse, 401 North Johnson

>Ave., phone 619-444-7717. Be sure to ask with an audience with Michael

>Murphy himself and see if you can get access to "the back".

>

>73,

>

>Dick

Yep, local electro/radio/BA hole. Da' Murph be an interesting study(outBk) but was the source for my complete sealed in depot box set of GRC-109s from Tobyhanna Army Depot. If in SD on Saturday or especially Sunday its worth a visit to "Kobey's Swap meet" at the Sports Arena parking lot. Its not a 'Ham' swap but have found some neat radio stuff. Examples?....HQ-150 \$20 perfect with th original finger mung on the knobs and no work since, \$15 NC-183D, Heath HX-11, RCA/Rider Channalyst (audio then RF/IF), Navy OE-12 like new with manual and orig blue prints, grunch o'manuals and tech pubs. Hey this was 'Bag Town', a Navy outpost that was and is, so as old guys go SK stuff shows up at the swap. DX35 for \$5? ..got one! 1930s Aircraft com gear? Ya just gotta dive, Dave Stinson style, into the boxes. The first EAC R390A was \$30 at yard sale.M'Fo in the last 2 months but its still worth a shot. Look for the guy who passes for Jerry Garcia on a bad hair day or an evil Santa Claus with attitude so we can talk toobs. Y'all gonna git yer skanky butt to San Luis this May for the rdio camp out ??? Ya better! Or Gimme a shout if'n ya get to the Peoples Republic of Ocean Beach. Sit on the front porch...drink Mexican beer, watch Whales.The next Radio swap is at the Santee drive in on the 1st Sat in March @ 0600(L)...

Ed Zeranski This is a private opinion or statement.

home email: ezeran@cris.com

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Date: Sat, 21 Feb 1998 23:53:07 EST

From: kb9iua@juno.com (Kevin L Anderson)

To: ddillman@igc.apc.org

Cc: boatanchors@theporch.com

Subject: Re: Fax

Message-ID: <19980221.225354.7831.1.kb9iua@juno.com>

Dick Dillman wrote:

> rising smoke, howling tuning fork and all - when I first started  
copying HF  
> FAX. The receiver was a RBC. Not stable enough for FAX of course so I  
used  
> a BC-221H as a BFO. With that setup even when the receiver drifted the  
> relationship between the signal and the BFO remained the same. As you  
might  
> imagine, with all the gears, levers and knobs on the TXC-2 to fiddle  
with  
> plus the RBC and BC-221H it was a bit of a one man band around here at  
FAX

Hi, Dick. Help me. Explain with a bit more detail how you used the  
BC-221 as  
the BFO. Did you inject it? How did it keep the shift from happening in  
the  
drift? Bob Keys mentioned once doing the same, and I still didn't quite  
understand.  
I realize the BC-221 is rock steady, but how does that offset the drift  
of the receiver? Thanks.

> So I wonder: are there any other antique FAX wackos out there or have  
I  
> finally found myself alone on the fringe?

Yes and no. I can claim to have received RF FAX WX maps for three years  
steady, from 1990 to 1993. Alas, it was all using sandy state equipment.  
--

a Sangeon 831 receiver, a RS-232 demodulator, and software on a Leading  
Edge x86 computer (remember those?). I did this when I was employed as  
a college professor and wanted maps for use in my weather&climate course.  
Was a regular listener to the Fax/RTTY circuit of the USAF out of  
Nebraska,  
plus occasionally the USN out of Norfolk (before they shifted the  
operation  
to Maine in a consolidation with the Coast Guard; even that I believe may  
be  
shut down or running really limited sked.). Twice a day at least I  
changed  
frequencies to account for propogation. Not the full resolution you  
received  
with your hot burning true FAX printer, but interesting all the same. I

would  
sit for hours, when I was in the mood to be easily distracted, watching  
each  
map appear on the screen. I would save them all to disk, printing a  
limited  
set on the laser printer each morning. Would also record periodically  
the  
hourly RATT sending of coded weather observations. Cool (hot :-) stuff!  
Wish I had the setup still, but I had to leave it with the college when I  
left....

Cheers/73. Kevin, KB9IUA

\* \* \* \* \*  
Kevin Anderson, KB9IUA, Rock Island IL USA  
kb9iua@juno.com or Kevin.L.Anderson@usace.army.mil  
\* \* \* \* \*

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Or call Juno at (800) 654-JUNO [654-5866]

-----  
Date: Sun, 22 Feb 1998 16:59:41 +1100  
From: Morris Odell <morriso@vifp.monash.edu.au>  
To: eb5agv@ctv.es  
Cc: boatanchors@sco.theporch.com  
Subject: Re: Buying a \$66 Racal RA-17  
Message-ID: <34EFBECD.2E65@vifp.monash.edu.au>

Hi all,

JOSE V. GAVILA (EB5AGV/EC5AAU) wrote:

>

> And the \$1M question: How good receiver the RA-17 is, comparing to our old  
> known R-390(A), R-388, SP-600, ...?.

Since I have a RA17 sitting on the bench between an R390A and a 51J4  
I'll try to answer the question.

Compared to the other two there's plenty of sensitivity and remarkable  
ease of tuning. It has a "megacycle" and "kilocycle" pair of dials but  
there the resemblance ends. The "megacycle" tuning is entirely  
electronic so you just tweak it until the noise (and there's plenty of

it - see below) peaks on the band you want. Easy as that - no gears, detents, crystal switches etc like in the other 2 radios. The filmstrip kilocycles dial look extremely cool but I do worry at time about replacement films. It has a built in preselector which is superficially like the antenna tuning system in the Collins radios, but which you can leave switched out most of the time.

The selectivity switching is great - there's a full lattice crystal filter and 6 selectivity positions down to 100 Hz. Very smooth response with not as much ringing as with mechanical filters.

There's only one crystal oscillator in the entire tuning system and the VFO seems very stable.

The downsides: The audio is very low powered and terrible through the PW internal speaker. The SSB performance is absolutely dreadful, MUCH worse than the R390A, and it really needs an external product detector and modified AVC. The worst whinge is that it uses pentode and heptode mixers including the 6BE6, the world's worst noisiest mixer tube. This results in a MUCH noisier radio than the R390A which uses triodes, and for some reason even noisier than the 51J4 which uses (god help us) 2 6BE6s and even 3 on one band.

Despite these minor whinges, it's a lovely radio. It looks great and is a wonderful band scanner thanks to the easy megacycle selection. I have the American version which uses easy to find tubes. The UK tube list doesn't look too difficult - I suspect some of them may be straight replacements but I'm not sure.

If you can get one for \$66, jump at it.

73 de Morris VK3DOC

-----  
Date: Sun, 22 Feb 1998 17:08:50 +1100  
From: Morris Odell <morriso@vifp.monash.edu.au>  
To: eb5agv@ctv.es  
Cc: boatanchors@sco.theporch.com  
Subject: Re: Buying a \$66 Racal RA-17  
Message-ID: <34EFC0F2.73EF@vifp.monash.edu.au>

Hi again,  
>

> And the \$1M question: How good receiver the RA-17 is, comparing to our old  
> known R-390(A), R-388, SP-600, ...?.

Did you know that the RA17 was developed when Racal lost the contract to build Collins receivers (I'm pretty sure it was the 51J series) in the UK for the UK armed forces? That receiver got Racal going as a major manufacturer. Collins apparently didn't think the Brits could do a good enough job...

73 de Morris VK3DOC

-----  
Date: Sat, 21 Feb 1998 20:26:09 -0500  
From: John Dilks <oldradio@worldnet.att.net>  
To: ddillman@igc.apc.org  
Cc: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: More stuff from Grandpa.../facsimile  
Message-ID: <34EF7EB1.7336@worldnet.att.net>

Dick Dillman wrote:

>  
> So I wonder: are there any other antique FAX wackos out there or have I  
> finally found myself alone on the fringe?  
> -----

I think I have a couple of those cv-57??? converters kicking around, if anyone needs one. Email me and I'll check my storage area in early March.

--

73' John Dilks, K2TQN

Webmaster for the Antique Wireless Association  
<http://www.ggw.org/awa> Click on "Page 2"

--and--

for the New Jersey Antique Radio Club  
<http://www.eht.com/oldradio>

-----please-visit-----

-----  
Date: Sun, 22 Feb 1998 12:01:22 +0100  
From: Heinz und Hannelore Breuer <hbreuer@metronet.de>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: Need HRO 60 info  
Message-ID: <34F00582.158E@metronet.de>

Hi David,

the 353C-X series was considered for the Collins 75A-1 receiver. I would not try it in a HRO-60 without checking the schematic first.

Please email me if you need the schematic for the 353C-14 and can fax it.

73

Heinz - KF6FNC

John Kolb wrote:

>

> On Sat, 21 Feb 1998, H. Dave meitzen wrote:

>

> > I have aquired a Collins 353C-14 filter adapter (1.4 Khz BP)for the HRO  
> > 60. Does any one know where I plug the little puppy in. There is a empty  
> > octal socket in the back but I would like to be sure.

>

> Not too sure this is for the HRO-60. My 1959 Western Radio catalog  
> lists the 353A-08, -31, and -60 for the SP-400 and HRO-60 (where  
> the dash number is the filter bandwidth in 100's of cycles/sec)  
> The 353B-08, -12, and -31 is for the SP-600, and the 353D-08 and -60 are  
> for the HRO50 and HRO-50T1. There are other adapters besides this  
> list, of course - I have a 353D-31 (filterless) here that's  
> not on the list, but I wouldn't expect both the 353A and 353C  
> series to fit the same receiver.

>

> At any rate, these plug in in place of the 1st IF tube. In  
> the case of the 353D series, there's a lead coming out of the  
> adapter top that the grid cap from the first IF transformer  
> connects to.

>

> John KK6IL

-----  
Date: Sun, 22 Feb 1998 07:49:54 EST

From: Galpind@aol.com

To: boatanchors@sco.theporch.com

Subject: Tube Substitutions

Message-ID: <e6361c5.34f01ef4@aol.com>

I recently got my RAO 7 cleaned up and working. It has a 5U4 in place of the 5Z3 rectifier and a 6L6 in place of the 6K6GT/G audio amp. The radio is working OK if a little down in sensitivity. However, I am curious about the tube substitutions. They seem to make sense in terms of availability (I have a several 5U4s and 6L6s in my box from disassembling TVs long ago) but my question to the experts is: Are these substitutions likely to cause any long

term problems?

73 & Thanks  
Dave Galpin KB0LP  
galpind@aol.com

-----  
Date: Sun, 22 Feb 1998 08:10:48 -0500 (EST)  
From: JD Delancy <k1zat@dsport.com>  
To: Don <nichf@roanoke.infi.net>  
Cc: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: Swan 508 VFO - Help!  
Message-ID: <Pine.GS0.3.95.980222080707.26258A-1000000@puff>

Hi Don -

On Sat, 21 Feb 1998, Don wrote:

> Does anyone have a copy of a manual for the Swan 508 VFO? I  
> got one of these things in pieces (literally). I'll need a  
> manual to get it back

My manual for the 500C contains a two page write-up on the 508  
"Frequency Control Unit." A couple of paragraphs each on dial  
calibration, operation, VFO alignment, dial set, and position  
plus the schematic. I don't know if there was a separate manual  
on the 508 or not.

If that's what you're after, send along snail mail particulars  
(Roanoke? near VT land?)..

jd

-----  
Date: Sun, 22 Feb 1998 08:58:20 -0500  
From: Bill Riches <richesb@algorithms.com>  
To: r390@qth.net  
Cc: boatanchors@theporch.com  
Subject: R-725 PTO  
Message-ID: <34F02EFC.78E9@algorithms.com>

I want to convert a r390a pto to work in my 725 - the filament wiring is  
different. Could anyone supply a copy of the wiring for the pto or list  
changes in an e-mail. I don't want to take apart the working vfo to  
draw a schematic if I don't have to.

73, Bill Riches, WA2DVU  
Cape May, NJ  
609 465 5005  
FAX 609 463 9575

-----  
Date: Sun, 22 Feb 1998 08:32:23 -0600 (CST)  
From: jeffa@ix.netcom.com  
To: boatanchors@theporch.com  
Subject: Amphenol RF Relays?  
Message-ID: <199822275216141@ix.netcom.com>

I need an antenna T/R switch for my SX-117/HT-44 pair.  
I just dug a couple of RF relays out of my "relay box," but  
I don't know their contact ratings, and I can't find any  
additional information about them.

They are both Amphenol (or Amphenol Bunker Ramo?)  
relays, with the following part numbers:

300-10519  
300-10004

They both have 26 vdc coils and BNC connectors.

I found some similar (but not identical) relays in  
the Surplus Sales of Nebraska catalog, and as near as  
I can tell the ratings are either 50, 100, or 300 watts,  
but I can't tell which. I'm also a bit confused by the  
spec's in this catalog - there's a "continuous" power  
rating, and then a peak power rating that is much higher.  
What sort of damage will happen if one runs at a higher  
than "continuous" power rating?

Any additional information on these relays (or phone  
number of manufacturer, etc.) would be \*very\* much  
appreciated.

Thanks,

- Jeff, WA6AHL

-----  
Date: Sun, 22 Feb 1998 09:33:32 EST



From: lrm-brm@juno.com  
To: boatanchors@theporch.com  
Subject: Help Dow-Key DKC-TR (Relay)  
Message-ID: <19980222.083054.9662.0.lrm-brm@juno.com>

Hello all.. could someone give me the hookup info for this type.. it has a 6AH6 tube, 3 wire connection line to rcvr?/xmtr?... input/rcvr ant/xmtr ant SO 259. Thanks.. Larry.

-----  
You don't need to buy Internet access to use free Internet e-mail.  
Get completely free e-mail from Juno at <http://www.juno.com>  
Or call Juno at (800) 654-JUNO [654-5866]

-----  
Date: Sun, 22 Feb 1998 09:12:49 -0600 (CST)  
From: Bob Roehrig <broehrig@admin.aurora.edu>  
To: Kevin L Anderson <kb9iua@juno.com>  
Cc: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: Fax  
Message-ID: <Pine.ULT.3.96.980222090851.5423D-100000@admin.aurora.edu>

On Sat, 21 Feb 1998, Kevin L Anderson wrote:

> So I wonder: are there any other antique FAX wackos out there or have  
> I finally found myself alone on the fringe?

Back in the 70's we got a bunch of the Western Union FAX machines made by Seeburg (I'd rather have one of the juke boxes :-). We modified them so they would send & receive sync pulses over the air and also to invert the image. Worked quite well on 2 meters. Still have a couple of them hoping to spark some interest around here some say again. Don't believe any other machine has the same format so they aren't compatible with anything else.

I was the one who originally petitioned the FCC to allow fax on HF but never did use it there myself.

"Nostalgia is a thing of the past"  
E-mail [broehrig@admin.aurora.edu](mailto:broehrig@admin.aurora.edu) 73 de Bob, K9EUI  
CIS: Data / Telecom Aurora University, Aurora, IL  
630-844-4898 Fax 630-844-5530

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Date: Sun, 22 Feb 1998 15:31:51 +0000  
From: Sandy W5TVW <ebjr@worldnet.att.net>  
To: Galpind@aol.com, boatanchors@theporch.com  
Subject: Re: Tube Substitutions  
Message-ID: <19980222153147.AAB28479@LOCALNAME>

At 07:49 AM 2/22/98 EST, you wrote:

>I recently got my RAO 7 cleaned up and working. It has a 5U4 in place of the  
>5Z3 rectifier and a 6L6 in place of the 6K6GT/G audio amp. The radio is  
>working OK if a little down in sensitivity. However, I am curious about the  
>tube substitutions. They seem to make sense in terms of availability (I have  
>a several 5U4s and 6L6s in my box from disassembling TVs long ago) but my  
>question to the experts is: Are these substitutions likely to cause any long  
>term problems?

>

>73 & Thanks  
>Dave Galpin KB0LP  
>galpind@aol.com

>

I would \*not\* leave the 6L6 in for an extended time. It will work OK, but  
is likely  
to draw more plate/screen current and has a greater heater drain than the 6K6.  
The 5U4 is nothing more than the 5Z3 with an octal base, so no problem here.  
I would hunt up a couple of 6K6's (one to use and one for a spare) for the one  
the 6L6 is 'subbed' for.

73,

E. V. Sandy Blaize, W5TVW

"Boat Anchors collected, restored, repaired, traded and used!"

417 Ridgewood Drive

Metairie, LA., 70001

\*\*860 Hartley 'ECO' construction "on hold"\*\*\*\*

\*\*\* Looking for a TRC-10 transceiver \*\*\*\*\*

\*\*\* Looking for an RAL receiver \*\*\*\*\*

-----

Date: Sun, 22 Feb 1998 10:39:20 -0500 (EST)  
From: "Roberta J. Barmore" <rbarmore@indy.net>  
To: "Benjamin D. Hall" <kd5byb@WT.NET>  
Cc: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: hot transformer fix  
Message-ID: <Pine.SUN.3.96.980222102226.26300B-100000@indy2>

Hi!

On Sat, 21 Feb 1998, Benjamin D. Hall wrote:

> [...] potential remedy for a hot transformer - [...] little muffin  
> fans [...].  
> One little fan sitting in front of me is mounted so that it blows on a heat  
> sink. Mount the heat sink to the transformer with a little heat sink goo  
> (surface tension will hold it okay I think) [...].

Ummm, nope! Heat sink goo is *\*not\** stickum, and is not a terribly great conductor of heat (it's better than air, not as good as water and beats nothing at all by about a 2:1 margin); what it's for is to fill the very very tiny gaps left between the device to be cooled and the heat-sink when you clamp 'em together. The usual practice of slathering a handful on as if greasing a baking cup for popovers (got some in the oven right now!) is a no-no. A very, very *\*thin\** coating is the way to go with this stuff--not enough to kinda-sorta stick a heatsink to a surface. Fan vibration will make the sink & fan want to walk off, too; it's not as slippery as lubricating grease but heat it up and apply vibration and you'll see some nifty moves.

A better but non-reversible method might be to use thermally-conductive epoxy, as used to stick heatsinks to some SS active devices, or to simply use threaded hardware & brackets & mechanical ingenuity to clamp the thing in place...a nice thin smear of heat-sink goo (the white Wakefield stuff gets high marks) *\*will\** help; apply a little, then take a razor blade and in one motion, remove all but a film, leaving just enough stuff to fill up the little irregularities in the interstices betwixt xfr & heat sink.

As usual, there's no free lunch. :) (And cooling the *\*core\** is the ideal fix--the end bells aren't very thick and will limit the amount of heat you can carry away. Figure everybody knew that but just in case...).

Anyway, heat-sink compound is not all that thermally conductive--think of it as a way of breathing on the thermodynamic dice for good luck and you won't be far wrong.

73,  
--Bobbi

-----  
Date: Sun, 22 Feb 1998 08:03:16 -0800 (PST)  
From: Dick Dillman <ddillman@igc.apc.org>  
To: kb9iua@juno.com (Kevin L Anderson)  
Cc: boatanchors@theporch.com  
Subject: Re: Fax  
Message-ID: <2.2.16.19980222080205.4547d1dc@pop.igc.org>

At 11:53 PM 2/21/98 EST, you wrote:

>Hi, Dick. Help me. Explain with a bit more detail how you used the  
>BC-221 as  
>the BFO.

G'morning, Kevin. Here's the deal on the BC-221 scheme.

While the RBC drifts in frequency the transmitting station and the BC-221 do not. So I set the BC-221 to the frequency of the transmitting station plus or minus the proper amount to produce a beat note containing the proper fax tones at the output of the RBA. I coupled the signal from the BC-221 to the antenna input of the receiver just by extending a wire from the BC-221 to the general area of the antenna connector. Under that arrangement while the receiver may drift the relationship between the incoming signal and the BC-221 signal will remain the same and it is this relationship that determines the audio tones heard in the receiver output. If the receiver drifts far enough the incoming signal will eventually drift outside its passband, I admit. But on the other hand you can re-tune the receiver while copying the fax transmission with no effect on the fax tones since they're determined by the BC-221 and the incoming signal. In that way you're just "peaking" the fax signal. I hope I've been able to explain this in a way that's somewhat clear. Let me know if I can provide any further details.

>Yes and no. I can claim to have received RF FAX WX maps for three years  
>steady, from 1990 to 1993. Alas, it was all using sandy state equipment.  
>--

>a Sangeon 831 receiver, a RS-232 demodulator, and software on a Leading  
>Edge x86 computer (remember those?). I did this when I was employed as  
>a college professor and wanted maps for use in my weather&climate course.

Ah, well at least you had a rational reason to copy the stuff! Yes, I had a Leading Edge once although I think it was an 8088 model. And I too will admit to using the RS-232 demodulator/software method here. But there's nothing like having to lubricate your fax machine with an oil can with a long, pointy spout before starting to copy!

73,

Dick

Dick Dillman  
<ddillman@igc.apc.org>  
WPE2VT W6AWO  
Collector Of Heavy Metal:

Harleys, Willys and Radios Over 100lbs.

-----  
End of BOATANCHORS Digest 1934

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>From ???@??? Sun Feb 22 17:04:25 1998  
Message-Id: <199802222139.PAA09158@sco.theporch.com>  
Date: Sun, 22 Feb 1998 15:39:02 CST  
Subject: BOATANCHORS digest 1935

BOATANCHORS Digest 1935

Topics covered in this issue include:

- 1) Re: San Diego BA Spots? Murphy?  
by Dick Dillman <ddillman@igc.apc.org>
- 2) Re: Tube Substitutions in RA0-7  
by "Lawrence R. Ware" <lrware@pipeline.com>
- 3) Re: Amphenol RF Relays?  
by "Arden Allen" <aallen@sirius.com>
- 4) 75A4 calibrator problems  
by w5sum@ms1.nwla.com
- 5) need AC-4 Drake power supply  
by Terry Burge <terrybu@netman.ENS.TEK.COM>
- 6) CE100V, COLLINS...FS  
by lardiere@ix.netcom.com (Rocco Lardiere )
- 7) re:BA List (Lust?) Gear Roll Call 2/21/98  
by Glenn Finerman <glennfin@mjet.com>
- 8) FS 1962 QST's  
by Paul Thekan <Paul.Thekan@eimac.cpii.com>
- 9) Re: Hallicrafters S27  
by Jerry Proc <jproc@idirect.com>
- 10) Help with Collins filter  
by "Sindre Torp" <sindtorp@online.no>
- 11) Re: Hallicrafters S27  
by "Grant Youngman" <nq5t@gte.net>
- 12) Re: Tube Substitutions  
by Henry van Cleef <vancleef@netcom.com>
- 13) Re: Hallicrafters S27  
by Dick Dillman <ddillman@igc.apc.org>
- 14) Re: Help Dow-Key DKC-TR (Relay)  
by Ed Tanton <n4xy@bellsouth.net>
- 15) Re: Hallicrafters S27  
by Al Klase <skywaves@bw.webex.net>
- 16) Randy gets RBM-3; need p.s.

- by Randy Zelick <h2rz@odin.cc.pdx.edu>
- 17) Help geting off of Milcomm list  
by k5jv@vonl.com (Lon W. Cottingham)
  - 18) Re: Hallicrafters S27  
by Henry van Cleef <vancleef@netcom.com>
  - 19) Re: 75A4 calibrator problems  
by gwoods@albany.net (Gary Woods)
  - 20) Re: Help geting off of Milcomm list  
by "Catherin Dentremont" <cdent@tenet.edu>
  - 21) re:BA List (Lust?) Gear Roll Call 2/21/98  
by John Kolb <jlkolb@cts.com>
  - 22) Re: BA List (Lust?) Gear Roll Call 2/21/98  
by Ho4bart@aol.com
  - 23) Re: BA List (Lust?) Gear Roll Call 2/21/98  
by "Arden Allen" <aallen@sirius.com>

-----

Date: Sun, 22 Feb 1998 08:03:10 -0800 (PST)  
From: Dick Dillman <ddillman@igc.apc.org>  
To: Edward Zeranski <ejz@nosc.mil>  
Cc: boatanchors@theporch.com  
Subject: Re: San Diego BA Spots? Murphy?  
Message-ID: <2.2.16.19980222080159.4547a78e@pop.igc.org>

At 08:36 PM 2/21/98 -0800, you wrote:

> Yep, local electro/radio/BA hole. Da' Murph be an interesting study(outBk)  
>but was the source for my complete sealed in depot box set of GRC-109s from  
>Tobyhanna Army Depot.

Yes, I try never to miss an opportunity to stop by and pay my respects. As I imagine you know Murph is more than a surplus dealer. He gets into the field on some pretty hairy operations in SE Asia and other garden spots. The last time I was down there I was returning from a job in the communications van with my sidekick Sprout. She's maybe 5ft. tall, in her 20s with fire-engine red hair and radio in her soul. Lives in my front closet when she's in town (no lie). She's the one, when we were in our matching white coveralls and carrying our matching BC-611s for communications at Livermore, who said - as I had mine cradled in my arm - "Ahem! According to the TM the correct carry for the BC-611 is with the strap extended and inverted over the shoulder so it can be brought rapidly into play!" I figured there were not many guys there that day who were being admonished on the correct way to carry their BC-611 by a 20 year old female. Anyway, when we were at Murphy's it came out that Sprout was just back from our operations near Tahiti where both of our ships had been siezed by the Froggies and Sprout herself had been thrown into chains (she's radio officer on our ships and is currently aboard the Rainbow Warrior in the

Southern Ocean). Needless to say that put us in solid with Murph. I love his motto: "Oh, yeah... I lost my mind years ago."

>If in SD on Saturday or especially Sunday its worth a  
>visit to "Kobey's Swap meet" at the Sports Arena parking lot. Its not a  
>'Ham' swap but have found some neat radio stuff.

Thanks for the tip. I shall make it part of my normal rounds when in the area.

> Y'all gonna git yer  
>skanky butt to San Luis this May for the rdio camp out ??? Ya better! Or  
>Gimme a shout if'n ya get to the Peoples Republic of Ocean Beach. Sit on  
>the front porch...drink Mexican beer, watch Whales.The next Radio swap is  
>at the Santee drive in on the 1st Sat in March @ 0600(L)...

Hee-hee. Yes, I have to tell you that I have been going over in my mind the inventory of the stuff I will bring. I'm very much looking forward to it. The only worrisky thing was that the Willys has started making strange noises from the transmission area. But just this weekend I got a call from a friend with a newly rebuilt T-90 for \$80 so I should be squared away on that score. The best would be if Sprout happened to be in town at the time. See you there!

73,

Dick

Dick Dillman  
<ddillman@igc.apc.org>  
WPE2VT W6AWO  
Collector Of Heavy Metal:  
Harleys, Willys and Radios Over 100lbs.

-----  
Date: Sun, 22 Feb 1998 11:05:54 +0000  
From: "Lawrence R. Ware" <lrware@pipeline.com>  
To: boatanchors@sco.theporch.com  
Subject: Re: Tube Substitutions in RA0-7  
Message-ID: <3.0.5.32.19980222110554.007fd840@pop.pipeline.com>

At 07:49 02/22/1998 EST, Dave Galpin wrote:  
>I recently got my RA0 7 cleaned up and working.  
Good for you! Great old National radio!  
Modified NC-100A with some mods and an extra RF stage.  
I'm echoing this to the BA list because it is of general interest.

>It has a 5U4 in place of the  
>5Z3 rectifier and a 6L6 in place of the 6K6GT/G audio amp.  
One thing to remember about these is that "what you have" often does  
\*not\* match "what the book says."

Built during the war years, minor changes from production run to run are  
common. In this case the \$64 question is:  
What is ink stamped next to the tube sockets?

Your audio output tube socket may be marked 6K6, 6V6, or 6F6.  
Never seen a 6L6, but that would not surprise me either.

>working OK if a little down in sensitivity.  
Got leaky caps? If you have not changed them yet, plan on doing so.  
Also IF alinement is done to the crystal filter, not the standard 455 KC.  
Typical crystal will be close but not exact. Last one I did was  
456.1 I think. Doing this properly really makes the radio come alive  
when the filter is used. :-)

I have a number of these and like them a lot.

-Larry

# Larry Ware  
# Admirer, Collector, Restorer of National Radio Company  
# receivers and other artifacts.  
# Orlando, Florida  
# lrware@pipeline.com

-----  
Date: Sun, 22 Feb 1998 09:05:43 -0800  
From: "Arden Allen" <aallen@sirius.com>  
To: "Old Tube Radios" <boatanchors@theporch.com>, <jeffa@ix.netcom.com>  
Subject: Re: Amphenol RF Relays?  
Message-ID: <199802221716.JAA06794@mail1.sirius.com>

Jeff queries:

> I'm also a bit confused by the  
> spec's in this catalog - there's a "continuous" power  
> rating, and then a peak power rating that is much higher.  
> What sort of damage will happen if one runs at a higher



> than "continuous" power rating?

As you can imagine, the surface area of metal is very small where the contacts "make" with each other. At this point the relay circuit resistance is at a maximum. This peak in resistance referred to as a "constriction resistance". That is the point at which maximum heat is generated ( $P = I_{sq} \times R$ ). The physical mass of metal of the contact structure determines the temperature the contacts will rise to. The more metal, the more "heat sinking". Exceeding the current rating (derived from the power rating which is probably specified for 50 ohms) will accelerate the degradation of the contacts. The voltage component of a relay power specification is not normally of concern except for VHF and higher frequency relays where dielectric loss (heating of the insulation) can be a problem. The continuous power rating is equivalent to average power being carried by a relay where peak power ratings are not being exceeded. "continuous" v/s "peak" is analogous to unmodulated carrier power v/s SSB PEP power. Also, relay switching should be sequenced so that arcing is avoided.

Give your loved ones Gummy Bears.  
Arden Allen KB6NAX Vallejo, CA aallen@sirius.com

-----  
Date: Sun, 22 Feb 1998 11:34:29 +0000  
From: w5sum@ms1.nwla.com  
To: boatanchors@theporch.com  
Cc: collins@qth.net  
Subject: 75A4 calibrator problems  
Message-ID: <199802221732.LAA24470@ms1.nwla.com>

got a strange new problem with my 75A4. Used the calibrator on 10 meters today, and to say the least, all I get is a harsh tone, nothing even resembling what it should be. Can tap on the crystal and it jumps around, but nothing like a nice clear tone.. just hash

went down to 75 meters and its not quite so bad, but still sounds like garbage.  
any ideas men?

Ronnie  
W5SUM - Ronnie Hull  
PO Box 8941  
Shreveport, La 71148

-----  
Date: Sun, 22 Feb 1998 09:42:26 PST

From: Terry Burge <terrybu@netman.ENS.TEK.COM>  
To: boatanchors@theporch.com, baswap@theporch.com  
Cc: terrybu@netman.ENS.TEK.COM  
Subject: need AC-4 Drake power supply  
Message-ID: <9802221742.AA01797@netman.ENS.TEK.COM>

Picked up a T4XB/R4A but need AC-4 (maybe AC-3) power supply. Have R4B so might do some trading if interested in the -A.

Terry  
KI7M  
(503)393-0545

-----  
Date: Sun, 22 Feb 1998 11:52:25 -0600 (CST)  
From: lardiere@ix.netcom.com (Rocco Lardiere )  
To: boatanchors@theporch.com  
Subject: CE100V, COLLINS...FS  
Message-ID: <199802221752.LAA06732@dfw-ix12.ix.netcom.com>

To All:

Ok, my shack is overflowing with boatanchors. I finally know how much is enough, and I have too much. This is all my private stuff.

I GREATLY prefer to have these things picked up from Rancho Palos Verdes (LA area), or I will deliver to the TRW Swap Meet. I will consider out of town offers if I do not get local offers by next weekend, but you ship. I just do not have much time for packing, etc.

Equipment can be seen by calling me at 310 541 7419.

Most equipment has a copy of the manual, or originals in some cases.

1. CE100V transmitter - physically good/very good, not checked out - \$450. A beautiful thing. Have another, don't want to mess with this one. Dial is stiff but works. Clean, excellent panel, knobs etc.
2. Johnson Ranger 1 transmitter - very good, works - \$240
3. Collins 32S-1 transmitter - very good, not checked out - \$250
4. Hallicrafters SX 117 receiver - very good, works great, but vernier dial slips - \$225

5. Hallicrafters SX 111 - good/very good, works - \$125
6. Hammarlund HQ110 - fair, works - \$60
7. CE 20A transmitters (two) - fair, not checked out - \$50 for the pair, with original manual and surplus vfo, not converted
8. Heath DX 60/HG 10 VFO - good/VG, not checked out - \$140. Original model of DX 60 with the escutcheon around the meter. Scratches on the VFO panel - needs green paint touch up.
9. Hallicrafters S41W Skyrider Jr. - very good/excellent - \$75 - works.
10. Collins Case/Home brew phone patch - \$45. Basically a winged speaker cabinet with a meter and two switches on the front.
11. Hammarlund HQ 129X, - good - \$80. With all original knobs. Needs panel paint, otherwise very nice, works.

73,

Rocco Lardiere N6KN

-----  
Date: Sun, 22 Feb 1998 12:51:03 -0500  
From: Glenn Finerman <glennfin@mjet.com>  
To: boatanchors@theporch.com  
Subject: re:BA List (Lust?) Gear Roll Call 2/21/98  
Message-ID: <3.0.3.32.19980222125103.00690bd8@mjet.com>

Hi Dexter,

If I might offer an opinion.....With the hundreds of list members that own BA's

(I bet it would be hard to find one list member that only owns one BA!!)  
you would probably be better off listing the rigs that we DON'T have.  
Just a thought..... I think that would be a REAL interesting list!!

Is there a BA that no one on the list has??.....I know there is a KW-1 on the list, Cosmophones,  
Gonsets, some pretty odd and rare stuff here!!

Just some interesting thread fodder...

73.....Glenn NA2DX (formerly N2BJG)  
glennfin@mjet.com

----- WANTED -----  
Pierce Simpson "Simba SSB" CB radio,  
Browning Golden Eagle MK II  
CW Filter for Collins 75S-3B  
Drake 2C with 2CQ  
R-648/ARR-41 Receiver

-----  
Date: Sun, 22 Feb 1998 10:04:24 -0800  
From: Paul Thekan <Paul.Thekan@eimac.cpii.com>  
To: boatanchors@theporch.com  
Subject: FS 1962 QST's  
Message-ID: <2.2.16.19980222102232.3877b9be@eitel.eimac.cpii.com>

I have a complete set of 1962 QST's in good condition for sale at \$10 for the lot , which includes shipping to the Cont. U.S.

Tnx  
Paul

Paul Thekan - Speaking for Himself  
Paul.Thekan@eimac.cpii.com

-----  
Date: Sun, 22 Feb 1998 13:12:21 -0500  
From: Jerry Proc <jproc@idirect.com>  
To: boatanchors@theporch.com  
Subject: Re: Hallicrafters S27  
Message-ID: <34F06A85.5321@idirect.com>

Thanks to everyone who responded about the frequency range of an S27. Unfortunately, there is a discrepancy in the upper frequency range.

27-154 Mhz - 1 response (From 1941 ARRL Book)  
27-143 Mhz - 3 responses  
27-145 Mhz - 2 responses

This may appear to be trivial, but I should explain why I need to know the correct number or a reason for the spread.

In World War II, a branch of the Royal Navy known as 'Y' intelligence and commonly referred to as 'HEADACHE', was charged with the task of intercepting and reading German low-grade radiotelephone traffic which had been steadily increasing since 1941. Headache operators usually came from a Special Branch of the RN and were fluent in German. Every important warship in the D-Day armada and the bombing force was provided with a Headache Unit for the interception and interpretation of enemy air and naval R/T on VHF. Fifty warships in all were fitted with Headache units.

HMCS HAIDA was equipped with a Headache Office until 1949. A former crew member incorrectly identified the receiver as a Hallicrafters Superskyrider S-16. It wasn't really his fault as 50 years of time eroded his recollection, even after seeing a photo of the unit. This information was incorrectly propagated in my research paper.

Now, I have proof positive that the receiver fitted aboard HAIDA was the Hallicrafters S27. It was used to monitor Luftwaffe tactical voice traffic. In the event of air attack, the operator would inform the bridge thus allowing the Officer of the Watch to take evasive or defensive tactics.

Since I have no idea of the frequency range that the Luftwaffe used , it just adds to the puzzle. I don't want to state the wrong frequency range and have someone come along later and tell me I'm eleven megahertz too low ;-)

Is it possible that there were S27 variants which would account for the different frequency ranges? Michael Hanz already mentioned that there was a 27-143 Mhz aircraft version, so that only leaves two other versions.

Comments please.

-

Regards,  
Jerry Proc VE3FAB    jproc@idirect.com  
Web:            www3.sympatico.ca/hrc/haida  
HMCS HAIDA Naval Museum, Toronto Ontario

-----  
Date: Sun, 22 Feb 1998 19:16:44 +0100  
From: "Sindre Torp" <sindtorp@online.no>  
To: <boatanchors@theporch.com>  
Subject: Help with Collins filter  
Message-ID: <199802221817.TAA29042@online.no>

Thanks for reading this.  
I've recently got a Collins Mechanical Filter. It's labeled with Rockwell International and the part number. I need help to determine which filter this is and for which receiver.

The Part No. is: 526 9690 010  
Date code: 8206

It fits in my 75S-3C, and then it sounds like it is 1.5kHz or something like that. But the filter with the part number above is not mentioned in the manual for the 75S-3C.

Thanks in advance for all help!

73,  
Sindre, LA60P  
Norway

-----  
Date: Sun, 22 Feb 1998 12:47:28 -0500  
From: "Grant Youngman" <nq5t@gte.net>  
To: Jerry Proc <jproc@idirect.com>, boatanchors@theporch.com  
Subject: Re: Hallicrafters S27  
Message-ID: <199802221847.MAA17589@smtp1.mailsvcs.net>

> Unfortunately, there is a discrepancy in the upper frequency range.  
>  
> 27-154 Mhz - 1 response (From 1941 ARRL Book)  
> 27-143 Mhz - 3 responses  
> 27-145 Mhz - 2 responses

Dachis' book references 4 versions of this receiver -- S-27, S-27B, S-27D, S-27-FCC.

The basic coverage is listed as 27-143MHz. The "B" model has a coverage of 36-165MHz. Apparently the "D" was the same as the basic S-27. And no information is available on the "FCC" variant.

Grant/NQ5T

-----  
Grant Youngman / NQ5T

nq5t@gte.net  
BA pics at <http://home1.gte.net/nq5t>  
Double Oak, TX -- nr Dallas

-----  
Date: Sun, 22 Feb 1998 12:02:08 -0700 (MST)  
From: Henry van Cleef <[vancleef@netcom.com](mailto:vancleef@netcom.com)>  
To: [Galpind@aol.com](mailto:Galpind@aol.com)  
Cc: [boatanchors@theporch.com](mailto:boatanchors@theporch.com)  
Subject: Re: Tube Substitutions  
Message-ID: <199802221902.LAA10114@netcom13.netcom.com>

As [Galpind@aol.com](mailto:Galpind@aol.com) discourses

>  
> I recently got my RAO 7 cleaned up and working. It has a 5U4 in place of the  
> 5Z3 rectifier and a 6L6 in place of the 6K6GT/G audio amp. The radio is  
> working OK if a little down in sensitivity. However, I am curious about the  
> tube substitutions. They seem to make sense in terms of availability (I have  
> a several 5U4s and 6L6s in my box from disassembling TVs long ago) but my  
> question to the experts is: Are these substitutions likely to cause any long  
> term problems?

>  
Are there chassis markings indicating what tubes were originally  
intended here?

5U4 is an octal 5Z3. Electrically, no change. In rectifiers,  
80->5Y3, 83-V->5V4, 5Z3->5U4. These three pairs are identical except  
for 4-pin->octal socketing and are very satisfactory and relatively  
unobtrusive "mods."

On the audio stage, the 6L6 takes substantially more heater power.  
Biassed as a 6K6, it will draw 6K6 power from the B+, but be biased  
well toward class B. Check the cathode bias resistor. 410 ohms is  
correct for 6K6, 330 for 6V6 or 6L6. Check that the bias resistor is  
the value marked (they drift, and some go down), REPLACE the grid  
coupling cap, check the grid leak for value, and use a VTVM to assure  
that there is no voltage being developed across the grid leak on zero  
signal with

- a. Tube out of socket (leakage in coupling cap)
- b. Tube in socket (grid current).

Check the zero signal idling cathode current by measuring the voltage across the cathode resistor. For a 6K6 setup, should be around 35 ma. For a 6V6-6L6 setup, should be around 50 ma. 6V6 tolerates a wide range of bias in class A, generally runs OK in a 6K6 circuit. Use your tube handbooks effectively and select a bias point that keeps current down. 6V6 is a particularly good tube as it accepts a wide range of bias (-12 to -17 volts) in class A operation. 6K6 is an excellent low-current audio pentode with no equivalent in the beam tetrode series (50L6 similar, but you MUST keep screen voltage down to 110).

The main issue raised by audio tube substitution is power supply capability. In old radios, the audio output tube eats up a major part of the B+ current budget. You can assign 10 ma. of B+ to each 6SK7 or similar stage, 10 ma. to the mixer (whether separate from L0 or a combination tube, like 6SA7), 10 ma. to a separate L0, and 1 ma. to a 6SQ7 or other triode audio driver. The octal VR tubes (0D3 typical) want at least 12-15 ma. worst case. Cutting down B+ drain on the power supply will go a long ways toward cooling running temps and increasing set stability.

The design calculations for the audio output and VR-tube circuits are fairly simple, and don't require a lot of advanced EE stuff. For the VR-tube, it's pretty simple: if the dropping resistance is too high, the tube will wink out on low-line/high current drain (strong signal).

Good parameters for the audio stage with any of the above tubes, cathode bias:

Grid coupling cap .01 mike.

Grid leak 180-470K, with 240-250K preferred.

Cathode bias resistor selected to put tube on lowest class A current idling point given in the tube manuals.

Cathode bias cap 25 or more mikes at 35-50 volts rating (positive end on tube).

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=====  
Hank van Cleef  
=====

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Date: Sun, 22 Feb 1998 11:02:08 -0800 (PST)  
From: Dick Dillman <ddillman@igc.apc.org>  
To: jproc@idirect.com  
Cc: boatanchors@theporch.com



Subject: Re: Hallicrafters S27

Message-ID: <2.2.16.19980222110054.4447e6a2@pop.igc.org>

At 01:12 PM 2/22/98 -0500, you wrote:

>Thanks to everyone who responded about the frequency range of an S27.

>Unfortunately, there is a discrepancy in the upper frequency range.

>

>27-154 Mhz - 1 response (From 1941 ARRL Book)

>27-143 Mhz - 3 responses

>27-145 Mhz - 2 responses

Greetings, Jerry. I love your attention to detail and your interest in this period of history - an interest I share. Your question prompted me to go look at my S-27 with the following results. Part of the discrepancy may be due to the existence of calibration points on the dial beyond the last numerical designation at both the high and the low end of the scale on all bands. For example on my receiver on band 3 the last numerical calibration is 140Mc but calibration marks extend to 144Mc. Plus at the high end of each band there is considerable dial space between the last calibration mark and the limit of dial travel at the zero point on the logging scale. I don't think that would bring coverage up to 154Mc though, at least not on my receiver. Here's the information I found on my dial:

Band 1 - lowest number 28Mc, lowest calibration mark 27Mc, highest number 46Mc, highest calibration mark 47Mc

Band 2 - lowest number 48Mc, lowest calibration mark 46Mc, highest number 80mc, highest calibration mark 82Mc

Band 3 - lowest number 82Mc, lowest calibration mark 81.5Mc, highest number 140Mc, highest calibration mark 144Mc

I hope you find this of some use. I'd be interested to hear if other list members find other frequency ranges on their S-27s.

73,

Dick

Dick Dillman

<ddillman@igc.apc.org>

WPE2VT W6AWO

Collector Of Heavy Metal:

Harleys, Willys and Radios Over 100lbs.



According to the limited resources here (TME 11-227, German Radio Communication Equipment, dated June 1944), the VHF airborne equipment operated AM in the 38-48 MHz range. Ground troops had some tactical equipment, back-pack etc., in the 120-156 MHz range, again AM.

The S-16 tuned to 60MHz so it's not entirely out of the question, as VHF gear was in critically short supply.

Moore, 3rd edition, lists S-27 made from 1940-43 as covering 27-145 MHz. Also S-27B, 1940-41, covered 36-165. The "B" looks to me like it was purposely made to cover the Axis frequencies. The "military" S-36/36A began production in '42 and covered 27.8-143MHz. The airborne version was the ARR-5. This is a totally repackaged S-27: front panel about 9" square and case about 24" deep.

While we're on the subject, does anyone know of other VHF intercept receivers from this era?

Jerry Proc wrote:

>  
> Thanks to everyone who responded about the frequency range of an S27.  
> Unfortunately, there is a discrepancy in the upper frequency range....  
>  
  
>  
> Since I have no idea of the frequency range that the Luftwaffe used.....

--  
Al Klase - N3FRQ  
skywaves@bw.webex.net  
Flemington, NJ 08822  
Web Page: <http://www.webex.net/~skywaves/home.htm>

-----  
Date: Sun, 22 Feb 1998 11:25:10 -0800 (PST)  
From: Randy Zelik <h2rz@odin.cc.pdx.edu>  
To: Posting Boatanchors <boatanchors@theporch.com>  
Subject: Randy gets RBM-3; need p.s.  
Message-ID: <Pine.PTX.3.91.980222111547.3382C-100000@odin.cc.pdx.edu>

Howdy...

Well the Rickreal swap was pretty darn good. If I had real bux could have come back with a real clean 75A4 at 2/3 market price. Lotsa low end Hammarlunds, Halliscratchers 101's but instead for \$35.00 I scored a real

clean RBM-3. I think I have a lead on a manual copy, although if anyone has an original to part with lemme know. What I did \*not\* get was a power supply. Please send an email if you have an extra.

Later,

=Randy=

R. Zelick  
Department of Organismal Biology  
Portland State University  
P.O. Box 751  
Portland, OR 97207  
503-725-3086 (voice), 503-725-3888 (fax)  
email: h2rz@odin.cc.pdx.edu  
web: <http://odin.cc.pdx.edu/~h2rz/>

-----  
Date: Sun, 22 Feb 1998 13:32:20 -0600  
From: k5jv@von1.com (Lon W. Cottingham)  
To: Boat Anchors <boatanchors@theporch.com>  
Subject: Help geting off of Milcomm list  
Message-ID: <34F07D44.34877EF3@von1.com>

Does anyone know what is going on with the Milcomm list? I have been trying to unsubscribe for about a week with no lick. I have not received an acknowledgment of the request to unsubscribe. I continue to receive the endless lists of aircraft movements that the list has degenerated to. Today I attempted to unsubscribe again and received a message back that I was not a subscriber. However, I continue to get their postings. I have used all three addresses published in their help file and each time receive an invalid address message back. What am I doing wrong? Any help would be appreciated.

--

73 de Lon, K5JV

-----  
Date: Sun, 22 Feb 1998 12:39:03 -0700 (MST)  
From: Henry van Cleef <vancleef@netcom.com>

To: jproc@idirect.com  
Cc: boatanchors@theporch.com  
Subject: Re: Hallicrafters S27  
Message-ID: <199802221939.LAA13259@netcom13.netcom.com>

As Jerry Proc discourses

>  
> Thanks to everyone who responded about the frequency range of an S27.  
> Unfortunately, there is a discrepancy in the upper frequency range.  
>  
> 27-154 Mhz - 1 response (From 1941 ARRL Book)  
> 27-143 Mhz - 3 responses  
> 27-145 Mhz - 2 responses  
>  
> This may appear to be trivial, but I should explain why I need to know  
> the correct  
> number or a reason for the spread.  
>  
> In World War II, a branch of the Royal Navy known as 'Y' intelligence  
> and commonly referred to as 'HEADACHE', was charged  
> with the task of intercepting and reading German low-grade  
> radiotelephone  
> traffic which had been steadily increasing since 1941. Headache  
> operators usually came from a Special Branch of the RN and were fluent  
> in German. Every important warship in the D-Day armada and the bombing  
> force was provided with a Headache Unit for the interception and  
> interpretation of enemy air and naval R/T on VHF. Fifty warships in  
> all were fitted with Headache units.  
>  
> Since I have no idea of the frequency range that the Luftwaffe used , it  
> just adds to the puzzle. I don't want to state the wrong frequency  
> range and have someone come  
> along later and tell me I'm eleven megahertz too low ;-)  
>

Hi Jerry:

I might post to the hist. of technology mail list to see what some of the German frequencies were. However, since I am familiar with the tuners used in these sets (had to rewind some coils), I can make a few comments.

1. The standard production sets had their top frequency determined by the coilset, and to be continuous coverage could not go above 145 mhz. The actual maximum frequency claimed by Hallicrafters went down as time went on, but all of the standard sets could tune up to about 145 (i.e., 144.x) although the dial calibrations left off at a lower frequency.

2. Performance of these radios fell off badly above mid-band on band  
3. They would not have been selected as a suitable countermeasures  
radio in 1943-44 for anything much above 110 Mhz. The tuner was  
"state of the art" in 1940. It most definitely was not in 1943, when  
tubes like 6J6 and 6AK5 were available. If there had been a need for  
a sensitive countermeasures receiver "off the shelf" or similar for  
2-3 meter work a redesign of the tuner would have been carried out ca.  
1942 along with the redesign of the audio, which is the main  
difference between S-27 and S-36 series.

One question in my mind, before I post to the hist. of tech. list is  
just what German communications were these radios supposed to pick up.  
I can think of the following, offhand:

1. Submarine HF communications (the stuff the "HF-DF" huff-duff was  
developed for). This was long-distance (over 1000KM) so implies  
something like 20M or longer.
2. Ground-air communications. These are currently 118-135 Mhz,  
frequencies the USAAF actually were using before the end of WWII for  
the purpose.
3. Ground-ground communications.

I can probably find somebody who can ask the Smithsonian Air-and-Space  
museum what freqs are in their German aircraft (you could call them and  
ask this question as well).

Given the design and performance characteristics of the S-27/S-36, I'd  
be very inclined to believe that we are talking 3-10 meters, and not  
below (higher frequency).

--

=====  
Hank van Cleef  
=====

-----  
  
Date: Sun, 22 Feb 1998 20:09:12 GMT  
From: gwoods@albany.net (Gary Woods)  
To: w5sum@ms1.nwla.com, boatanchors@theporch.com  
Subject: Re: 75A4 calibrator problems  
Message-ID: <34f08465.70551990@mail.albany.net>

On Sun, 22 Feb 1998 11:34:29 +0000, you wrote:

>got a strange new problem with my 75A4. Used the calibrator on 10  
>meters today, and to say the least, all I get is a harsh tone,  
>nothing even resembling what it should be.

Sounds like 60 Hz^H^HCPS FM hum. Either the B+ isn't well-enough  
filtered, or the calibrator osc has a heater-cathode short. The  
higher the harmonic, the wider the deviation, and the more obnoxious  
the hum.

--

Gary Woods O- K2AHC    Public key at [www.albany.net/~gwoods](http://www.albany.net/~gwoods), or get 0x1D64A93D via  
keyserver  
gwoods@albany.net gwoods@wrgrb.com  
fingerprint = E2 6F 50 93 7B C7 F3 CA 1F 8B 3C C0 B0 28 68 0B

-----  
Date: Sun, 22 Feb 1998 14:16:44 -0600  
From: "Catherin Dentremont" <cdent@tenet.edu>  
To: k5jv@von1.com  
Cc: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: Help getting off of Milcomm list  
Message-ID: <34F087AC.51C9@TENET.EDU>

Lon W. Cottingham wrote:

>  
> Does anyone know what is going on with the Milcomm list? I have been  
> trying to unsubscribe for about a week with no luck. I have not received  
> an acknowledgment of the request to unsubscribe. I continue to receive  
> the endless lists of aircraft movements that the list has degenerated  
> to. Today I attempted to unsubscribe again and received a message back  
> that I was not a subscriber. However, I continue to get their  
> postings. I have used all three addresses published in their help file  
> and each time receive an invalid address message back. What am I doing  
> wrong? Any help would be appreciated.  
>  
> --  
>  
> 73 de Lon, K5JV

Hi Lon,

Sri I can't be of more help on this. I was "reading the mail" in  
ur QSO w/W5TZ re: this problem last week on 1822.5 LSB while listening  
for  
9M0C. BTW...congrats on the KW-1.

73, Gerald W5BA  
cdent@tenet.edu

-----  
Date: Sun, 22 Feb 1998 12:56:31 -0800 (PST)  
From: John Kolb <jlkolb@cts.com>  
To: Glenn Finerman <glennfin@mjet.com>  
Cc: Old Tube Radios <boatanchors@theporch.com>  
Subject: re:BA List (Lust?) Gear Roll Call 2/21/98  
Message-ID: <Pine.SC0.3.91.980222125435.5576B-100000@sd.cts.com>

On Sun, 22 Feb 1998, Glenn Finerman wrote:

> you would probably be better off listing the rigs that we DON'T have.  
> Just a thought..... I think that would be a REAL interesting list!!  
>  
> Is there a BA that no one on the list has??.....I know there is a KW-1 on

I'd be willing to bet that no one on the list has an FRR-48.  
See 3rd or 4th ed of Moore's rx book for picture.

I had one once and was told by the seller that only 3 were made.

John KK6IL

-----  
Date: Sun, 22 Feb 1998 16:06:51 EST  
From: Ho4bart@aol.com  
To: boatanchors@theporch.com  
Subject: Re: BA List (Lust?) Gear Roll Call 2/21/98  
Message-ID: <48e65f57.34f0936e@aol.com>

In a message dated 98-02-22 15:58:16 EST, jlkolb@cts.com writes:

>  
> > you would probably be better off listing the rigs that we DON'T have.  
> > Just a thought..... I think that would be a REAL interesting list!!

---these came to mind:  
Hallicrafters SX-112 and MSR-202 receivers  
Cardwell communications receiver  
Hammarlund HQ-88

73, hue



-----  
Date: Sun, 22 Feb 1998 13:35:17 -0800  
From: "Arden Allen" <aallen@sirius.com>  
To: "Old Tube Radios" <boatanchors@theporch.com>, <cwest@xmission.com>  
Subject: Re: BA List (Lust?) Gear Roll Call 2/21/98  
Message-ID: <199802222135.NAA04132@mail2.sirius.com>

Dexter;

That's a pretty unwieldly list for e-mail. Do you plan to make it into a searchable data base on a web page? That would be a nice way to find all the list owners of SX-28's for example. I wonder if everyone would keep their inventory info up to date. It would have to be searchable by owner so it could be easily updated by each contributor. I also wonder if it's wise to make that info available to the list public. I would feel better if it was for list members only and the members would have to register and use a pass word and each querie was logged. I would hate to read in the paper about someone's collection being stolen while away on vacation. Ya' never know about these things. Am I being paranoid?

Give your loved ones Gummy Bears.  
Arden Allen KB6NAX Vallejo, CA aallen@sirius.com

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End of BOATANCHORS Digest 1935  
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